



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0363; Directorate Identifier 2014-NE-08-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turboprop engines. This proposed AD was prompted by fuel leaks caused by damage to the fan case low-pressure (LP) fuel tube. This proposed AD would require inspection of the fan case LP fuel tubes and associated clips and the fuel oil heat exchanger (FOHE) mounts and associated hardware. We are proposing this AD to prevent failure of the fan case LP fuel tube, which could lead to an in-flight shutdown of one or more engines due to fuel starvation, loss of thrust control, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; Web site: <https://www.aeromanager.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0363; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Wego Wang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2014-0363; Directorate Identifier 2014-NE-08-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2014-0089, dated April 15, 2014 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Fuel leaks from the engine have occurred in-service due to damage to sections of the fan case low-pressure (LP) fuel tube which runs between the fuel oil heat exchanger (FOHE) and the high pressure fuel pump. Fretting damage between the securing clips and the tube outer surface has been caused by excessive movement within the system that resulted from deterioration of the FOHE mounting hardware. The thinning of the tube wall causes the tube to fracture and fuel loss to occur.

This condition, if not detected and corrected, could lead to a critical fuel imbalance or in-flight fuel starvation, possibly resulting engine in-flight shut-down and, consequently, reduced control of the aeroplane.

For the reasons described above, this AD requires repetitive on-wing and in-shop inspections and, depending on findings, replacement of fan case LP fuel tubes, clips and FOHE mounting hardware.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0363.

Relevant Service Information

RR has issued Alert Non-Modification Service Bulletin (NMSB) No. RB.211-73-AH522, Revision 1, dated March 18, 2014. The Alert NMSB describes procedures for on-wing and in-shop inspection and replacement if necessary, of the LP fuel tubes and FOHE mounts and associated hardware.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of the United Kingdom and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require inspection of affected LP fuel tubes and FOHE mounts and associated hardware and, if necessary, replacement with a part eligible for installation.

Costs of Compliance

We estimate that this proposed AD would affect about 50 engines installed on airplanes of U.S. registry. We also estimate that it would take about 6 hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$25,500.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Rolls-Royce plc: Docket No. FAA-2014-0363; Directorate Identifier 2014-NE-08-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines.

(d) Reason

This AD was prompted by fuel leaks caused by damage to the fan case low-pressure (LP) fuel tube. We are issuing this AD to prevent failure of the fan case LP fuel tube, which could lead to an in-flight shutdown of one or more engines due to fuel starvation, loss of thrust control, and damage to the airplane.

(e) Actions and Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) For engines that have 3,200 or more flight hours since new (FHSN) on the effective date of this AD, within 800 flight hours (FHs) after the effective date of this AD, accomplish an on-wing inspection of fan case LP fuel tubes, part number (P/N) FW53576, and associated clips, and the fuel oil heat exchanger (FOHE) mounts and associated hardware. Use paragraph 3.A. of RR Alert Non-Modification Service Bulletin (NMSB) No. RB.211-73-AH522, Revision 1, dated March 18, 2014, to do the inspection. Thereafter, inspect at intervals not to exceed 4,000 FHs.

(2) For engines that have less than 3,200 FHSN on the effective date of this AD, before exceeding 4,000 FHSN, accomplish an on-wing inspection of fan case LP fuel tubes, P/N FW53576, and associated clips, and the FOHE mounts and associated hardware. Use paragraph 3.A. of RR Alert NMSB No. RB.211-73-AH522, Revision 1, dated March 18, 2014, to do the inspection. Thereafter, inspect at intervals not to exceed 4,000 FHs.

(3) After the effective date of this AD, during each engine shop visit, inspect the fan case LP fuel tubes, P/Ns FW26589, FW36335, FW26587, FW535776, and FW53577, and associated clips, and the FOHE mounts and associated hardware. Use paragraph 3.B. of RR Alert NMSB No. RB.211-73-AH522, Revision 1, dated March 18, 2014, to do the inspection.

(4) If any inspection required by paragraphs (e)(1), (e)(2), or (e)(3) of this AD fails, replace the affected part with a part eligible for installation.

(f) Credit for Previous Actions

(1) If, before the effective date of this AD, you performed the inspections and corrective actions required by paragraphs (e)(1), (e)(2), or (e)(3) of this AD using RR Alert NMSB No. RB.211-72-AH522, dated September 20, 2013, you met the initial inspection requirements of paragraphs (e)(1), (e)(2), or (e)(3) of this AD.

(2) Any inspections and corrective actions performed before the effective date of this AD are not terminating action for the repetitive inspections required by paragraphs (e)(1), (e)(2), and (e)(3) of this AD.

(g) Definitions

For the purposes of this AD:

(1) An “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance is not an engine shop visit.

(2) The fan case LP fuel tubes and associated clips, and the FOHE mounts and associated hardware are eligible for installation if they have passed the inspection requirements of paragraphs (e)(1), (e)(2), and (e)(3) of this AD.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Wego Wang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2014-0089, dated April 15, 2014, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2014-0363.

(3) RR Alert NMSB No. RB.211-73-AH522, Revision 1, dated March 18, 2014, which is not incorporated by reference in this AD, can be obtained from Rolls-Royce plc using the contact information in paragraph (i)(4) of this AD.

(4) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; Web site: <https://www.aeromanager.com>.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on June 27, 2014.

Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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